

# SND TYPE

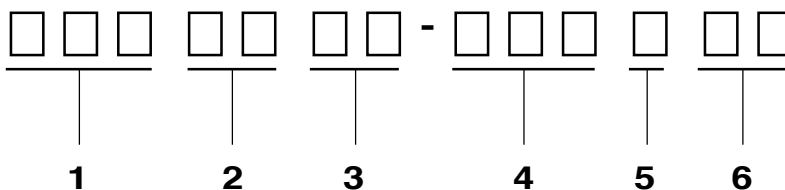
## SMD POWER INDUCTOR



### FEATURE

- SMD Type
- Low DC resistance.
- Suitable for large currents.
- Ideal for a variety of DC - DC converter inductor applications.
- Available on tape and reel for auto surface mounting

### PRODUCT IDENTIFICATION



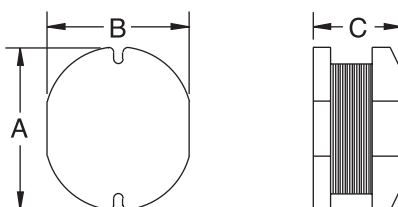
### APPLICATION

- DC/DC converter
- Camcorder
- LCD TV
- MP3-player
- Digital camera
- G.P.S.
- Portable CDR-W
- PDA (desktop)

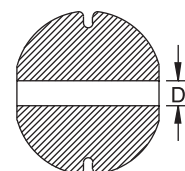
- 1) PRODUCT SYMBOL
- 2) OUTSIDE DIA : m/m
- 3) BODY HEIGHT : m/m
- 4) INDUCTANCE :  $\mu\text{H}$
- 5) TOLERANCE : K 10%, L 15%, M 20%
- 6) Meet ROHS Regulations of Prohibited 6 Poisonous Materials

### SHAPES & DIMENSION

#### DIMENSION



#### TERMINAL SHAPE



Dimension in m/m

TYPE	A	B	C	D TYP.
<b>SND 03011</b> (1 $\mu\text{H}$ ~470 $\mu\text{H}$ )	3.3 $\pm$ 0.3	3.0 $\pm$ 0.3	1.1 $\pm$ 0.3	1.0
<b>SND 03015</b> (1 $\mu\text{H}$ ~2700 $\mu\text{H}$ )	3.3 $\pm$ 0.3	3.0 $\pm$ 0.3	1.5 $\pm$ 0.3	1.0
<b>SND 03021</b> (1 $\mu\text{H}$ ~2700 $\mu\text{H}$ )	3.3 $\pm$ 0.3	3.0 $\pm$ 0.3	2.1 $\pm$ 0.3	1.0
<b>SND 0302</b> (1 $\mu\text{H}$ ~820 $\mu\text{H}$ )	3.0 $\pm$ 0.3	2.8 $\pm$ 0.3	2.5 $\pm$ 0.3	0.8
<b>SND 0403</b> (1 $\mu\text{H}$ ~2200 $\mu\text{H}$ )	4.5 $\pm$ 0.3	4.0 $\pm$ 0.3	3.2 $\pm$ 0.3	1.3
<b>SND 0502</b> (1 $\mu\text{H}$ ~1500 $\mu\text{H}$ )	5.8 $\pm$ 0.3	5.2 $\pm$ 0.3	2.5 $\pm$ 0.3	1.3
<b>SND 0503</b> (1 $\mu\text{H}$ ~470 $\mu\text{H}$ )	5.8 $\pm$ 0.3	5.2 $\pm$ 0.3	3.0 $\pm$ 0.3	1.3
<b>SND 0504</b> (10 $\mu\text{H}$ ~1000 $\mu\text{H}$ )	5.8 $\pm$ 0.3	5.2 $\pm$ 0.3	4.5 $\pm$ 0.3	1.3
<b>SND 0703</b> (10 $\mu\text{H}$ ~470 $\mu\text{H}$ )	7.8 $\pm$ 0.3	7.0 $\pm$ 0.3	3.5 $\pm$ 0.3	2.1
<b>SND 0705</b> (10 $\mu\text{H}$ ~1800 $\mu\text{H}$ )	7.8 $\pm$ 0.3	7.0 $\pm$ 0.3	5.0 $\pm$ 0.3	2.1
<b>SND 1004</b> (10 $\mu\text{H}$ ~1000 $\mu\text{H}$ )	10.0 $\pm$ 0.3	9.0 $\pm$ 0.3	4.0 $\pm$ 0.3	2.1
<b>SND 1005</b> (10 $\mu\text{H}$ ~1000 $\mu\text{H}$ )	10.0 $\pm$ 0.4	9.0 $\pm$ 0.4	5.4 $\pm$ 0.3	2.1
<b>SND 1006</b> (10 $\mu\text{H}$ ~1200 $\mu\text{H}$ )	11.0Max.	10.0Max.	7.5Max.	2.1
<b>SND 1008</b> (1 $\mu\text{H}$ ~1200 $\mu\text{H}$ )	11.0Max.	10.0Max.	8.5Max.	2.1

# SND TYPE

## SMD POWER INDUCTOR

### STANDARD SPECIFICATION

Part No.	L(μH)	DC Resistance (Ω) Max.														Rated Current (A) Max.																	
		SND 03011	SND 03015	SND 03021	SND 0302	SND 0403	SND 0502	SND 0503	SND 0504	SND 0703	SND 0705	SND 1004	SND 1005	SND 1006	SND 1008	SND 03011	SND 03015	SND 03021	SND 0302	SND 0403	SND 0502	SND 0503	SND 0504	SND 0702	SND 0703	SND 0705	SND 1004	SND 1005	SND 1006	SND 1008			
1R0	1.0	0.09	0.060	0.07	0.07	0.049	0.03		0.028	0.012	0.023					1.5	1.60	2.08	2.080	2.560	4.500		3.000		5.32	4.8							
1R5	1.5		0.130	0.09	0.09	0.057	0.04		0.029	0.018	0.023						1.86	1.860	3.000	4.000		3.000		5.20	4.7								
1R8	1.8			0.11	0.11	0.064	0.05		0.030		0.025	0.017					0.80	1.800	1.950	3.300		2.600			4.2	4.85							
2R2	2.2	0.20	0.130	0.13	0.13	0.072	0.06		0.042	0.022	0.026	0.017		0.024		1	1.20	1.39	1.390	1.750	2.940		2.300		3.80	3.8	4.84	4.5	10				
2R7	2.7			0.14	0.14	0.079	0.07		0.044	0.025	0.026						1.32	1.320	1.580	2.500		2.100			2.90	3.75							
3R3	3.3	0.22	0.143	0.17	0.20	0.087	0.08		0.045	0.050	0.027	0.03				0.87	0.90	1.25	1.250	1.440	2.350		2.000		2.80	3.59	3.0						
3R9	3.9			0.19	0.21	0.094	0.09		0.047	0.051	0.028						1.20	1.200	1.330	2.200		1.950			2.70	3.48							
4R7	4.7	0.31	0.195	0.21	0.33	0.109	0.14		0.048	0.052	0.030	0.04	0.036			0.65	0.65	1.03	1.030	1.150	2.000		1.900		2.50	3.0	3.12	4.0					
5R6	5.6	0.32	0.260	0.22	0.35	0.126	0.15		0.050		0.035	0.045	0.04	0.03		0.6	0.91	0.910	1.100	1.800		1.800			2.5		3.7	6.0					
6R8	6.8	0.33	0.273	0.25	0.38	0.132	0.16		0.060		0.040	0.047		0.028		0.55	0.55	0.85	0.850	1.080	1.700		1.600				2.8				5.0		
8R2	8.2	0.48	0.364	0.28	0.43	0.147	0.17		0.090		0.048	0.048				0.52	0.50	0.82	0.820	1.050	1.400		1.500			2.48							
100	10	0.52	0.390	0.32	0.50	0.182	0.18	0.15	0.10	0.08	0.07	0.05	0.06	0.06	0.036	0.45	0.45	0.74	0.740	1.040	1.200	1.6	1.440	1.44	1.440	2.300	2.380	2.600	3.500	4.050			
120	12	0.65	0.455	0.35	0.65	0.210	0.20		0.12	0.09	0.08	0.06	0.07	0.07	0.038	0.43	0.42	0.64	0.640	0.970	1.180		1.400	1.40	1.390	2.000	2.130	2.450	3.400	3.600			
150	15	0.70	0.754	0.40	0.82	0.235	0.22	0.18	0.14	0.10	0.09	0.07	0.08	0.08	0.04	0.42	0.30	0.60	0.600	0.850	1.150	1.2	1.300	1.25	1.240	1.800	1.870	2.270	3.100	3.340			
180	18	0.80	0.767	0.48	0.90	0.338	0.25		0.15	0.11	0.10	0.08	0.09	0.09	0.05	0.41	0.29	0.54	0.540	0.740	1.100		1.230	1.23	1.120	1.600	1.730	2.150	3.000	3.050			
200	20		0.78	0.56	1.02	0.350	0.34									0.28	0.52	0.520	0.700	1.050													
220	22	1.20	0.923	0.58	1.14	0.378	0.35	0.32	0.18	0.13	0.11	0.09	0.10	0.10	0.06	0.40	0.25	0.50	0.500	0.680	1.000	1.00	1.110	1.14	1.070	1.500	1.600	1.950	2.600	2.800			
270	27		1.118	0.65	1.39	0.522	0.45	0.34	0.20	0.15	0.12	0.10	0.11	0.11	0.07	0.23	0.43	0.430	0.620	0.860	0.94	0.970	0.95	0.940	1.300	1.440	1.760	2.400	2.500				
330	33	1.43	1.430	0.80	1.55	0.540	0.50		0.23	0.17	0.13	0.12	0.12	0.12	0.08	0.26	0.20	0.40	0.400	0.560	0.790		0.880	0.86	0.850	1.200	1.260	1.500	2.300	2.400			
390	39			0.90	2.15	0.587	0.69		0.32	0.22	0.16	0.15	0.14	0.14	0.09		0.37	0.370	0.520	0.750		0.800	0.78	0.740	1.100	1.200	1.370	2.100	2.200				
470	47	2.40	1.69	1.19	2.44	0.844	0.72	0.46	0.37	0.25	0.18	0.17	0.17	0.17	0.11	0.16	0.17	0.36	0.360	0.440	0.730	1.12	0.720	0.70	0.680	1.100	1.100	1.280	1.950	2.000			
560	56	3.20	2.08	1.27	2.68	0.937	0.84	0.61	0.42	0.28	0.24	0.20	0.19	0.19	0.12	0.15	0.15	0.31	0.310	0.420	0.550	0.64	0.680	0.65	0.640	0.940	1.010	1.170	1.850	1.900			
680	68	3.70	2.86	1.73	3.05	1.117	0.90		0.46	0.33	0.28	0.22	0.22	0.22	0.15	0.12	0.13	0.30	0.300	0.370	0.520		0.610	0.60	0.590	0.850	0.910	1.110	1.650	1.800			
820	82	3.80	3.25	1.99	3.48	1.200	0.95		0.60	0.41	0.37	0.25	0.25	0.25	0.19	0.11	0.128	0.28	0.280	0.300	0.500		0.580	0.56	0.540	0.780	0.850	1.000	1.500	1.600			
101	100	4.50		2.52	3.84	1.440	1.30	0.95	0.70	0.48	0.43	0.34	0.35	0.35	0.23	0.1	0.10	0.25	0.250	0.280	0.400	0.46	0.520	0.51	0.510	0.720	0.740	0.970	1.400	1.500			
121	120		4.55	2.90	5.76	1.610	1.38		0.93	0.54	0.47	0.40	0.40	0.40	0.32		0.123	0.20	0.200	0.240	0.360		0.480	0.49	0.490	0.660	0.690	0.890	1.300	1.400			
151	150			3.36	6.62	1.800	1.81		1.10	0.75	0.64	0.54	0.47	0.47	0.37			0.19	0.190	0.220	0.300		0.400	0.40	0.400	0.580	0.610	0.780	1.200	1.300			
181	180			7.15	3.68	7.36	2.180	1.95		1.38	1.02	0.71	0.62	0.63	0.42			0.122	0.17	0.170	0.210	0.260		0.380	0.37	0.360	0.510	0.560	0.720	1.000	1.200		
221	220		8.32	5.30	8.38	2.570	2.10		1.57	1.20	0.96	0.72	0.73	0.73	0.44			0.120	0.16	0.160	0.200	0.250		0.350	0.30	0.310	0.490	0.530	0.660	0.950	1.000		
271	270		12.61	5.95	13.69	3.520	2.42		1.85	1.31	1.11	0.95	0.97	0.97	0.55			0.115	0.14	0.140	0.180	0.210		0.280	0.29	0.290	0.420	0.450	0.570	0.900	0.950		
331	330	13.62	14.56	9.24	15.78	5.0	3.82		2.00	1.50	1.26	1.10	1.15	1.15	0.60	0.084	0.100	0.13	0.130	0.120	0.180		0.260		0.280	0.400	0.420	0.520	0.800	0.900			
391	390		16.12	10.14	17.40	6.0	4.68		2.60	2.70	1.77	1.24	1.30	1.30	0.67		0.09	0.12	0.120	0.115	0.160		0.240		0.270	0.360	0.380	0.480	0.750	0.800			
471	470	26.80	18.2	11.48	20.0	7.0	5.10	4.6	3.00	3.00	1.96	1.53	1.48	1.48	0.88	0.072	0.09	0.084	0.084	0.110	0.150	0.2	0.120		0.250	0.340	0.350	0.420	0.650	0.700			
561	560		20.8	19.49		8.0	6.00		4.19	2.03	1.90	1.90	1.90	1.04		0.084	0.08		0.10	0.140					0.20	0.320	0.330	0.600	0.650				
681	680		36.01	22.00		9.0	7.60		4.44	2.35	2.25	2.45	1.18			0.075	0.08		0.098	0.130					0.18		0.280	0.500	0.600				
821	820			23.98	40.0	10.0	9.12		5.12		2.5	2.55	2.55	1.38			0.07	0.078	0.095	0.070						0.17		0.240	0.480	0.500			
102	1000		44.2	28.80		12.0	9.87		10.0		4.0	3.86	3.56	3.00	1.74		0.060	0.06		0.09	0.050					0.15	0.18	0.210	0.460	0.480			
122	1200		49.4			15.0							3.50	1.92			0.050			0.045								0.350	0.380				
152	1500		58.5	50.00		27.58	20.0										0.048	0.05		0.04	0.040												
182	1800		66.30	61.00							5.6						0.045	0.048									0.11						
222	2200		71.50	68.70		29.16											0.035	0.049		0.04													
272	2700		109.20	78.80													0.028	0.043															

1. Test Freq. (L)

1.0~8.2μH (7.96MHz/IV); 10~82μH (2.52MHz/IV); 100~1200μH (1KHz/IV); SND03015(1MHz/IV); SND1006, SND1008(1KHz/IV)

2. Tolerance of Inductance

- |           |                                     |          |                                                     |
|-----------|-------------------------------------|----------|-----------------------------------------------------|
| SND 03011 | 1.0~470μH ± 20%(M)                  | SND 0504 | 1.0~27μH ± 20%(M)33~47μH ± 15%(L)56~1000μH ± 10%(K) |
| SND 03015 | 1.0~2700μH ± 20%(M)                 | SND 0703 | 1.0~47μH ± 20%(M)56~470μH ± 10%(K)                  |
| SND 03021 | 1.0~2700μH ± 20%(M)                 | SND 0705 | 1.0~1800μH ± 20%(M)                                 |
| SND 0302  | 1.0~820μH ± 20%(M)                  | SND 1004 | 1.0~47μH ± 20%(M)56~1000μH ± 10%(K)                 |
| SND 0403  | 1.0~27μH ± 20%(M)33~2200μH ± 10%(K) | SND 1005 | 1.0~39μH ± 20%(M)47~1000μH ± 10%(K)                 |
| SND 0502  | 1.0~27μH ± 20%(M)33~1500μH ± 10%(K) | SND 1006 | 1.0~82μH ± 20%(M)100~1200μH ± 10%(K)                |
| SND 0503  | 1.0~27μH ± 20%(M)33~470μH ± 10%(K)  | SND 1008 | 1.0~82μH ± 20%(M)100~1200μH ± 10%(K)                |

3. The rated current indicates the value of current when the induct

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## SMD POWER INDUCTOR

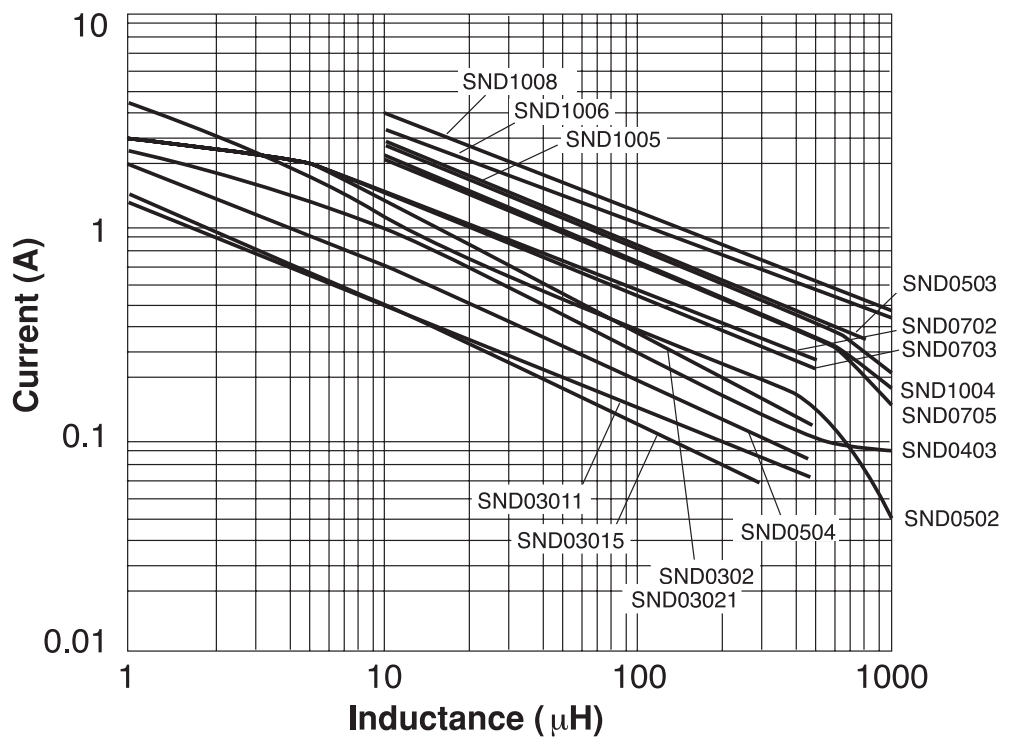
### SPECIFICATION

**INDUCTANCE 1 $\mu$ H~1000  $\mu$ H**

TYPICAL ELECTRICAL CHARACTERISTIC CURVE: SND 03011~1008

TEST INSTRUMENT: HP 4263B, Zentech 301A

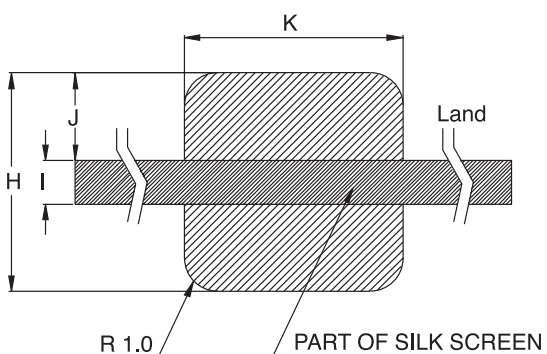
INDUCTANCE-CURRENT (REFERENCE)



### RECOMMENDED LAND PATTERNS FOR SMD

UNIT: mm

TYPE	H	I	J	K
SND03011	3.6	1.2	1.2	3.5
SND03015	3.6	1.2	1.2	3.5
SND03021	3.6	1.2	1.2	3.5
SND0302	3.6	1.2	1.2	3.2
SND0403	5.0	1.5	1.5	4.5
SND0502	6.0	1.7	2.15	5.5
SND0503	6.0	1.7	2.15	5.5
SND0504	6.0	1.7	2.15	5.5
SND0703	8.0	2.0	3.0	7.5
SND0705	8.0	2.0	3.0	7.5
SND1004	10.0	2.5	3.75	9.5
SND1005	10.0	2.5	3.75	9.5
SND1006	10.0	2.5	3.75	9.5
SND1008	10.0	2.5	3.75	9.5



Please coat with silk screen between the two terminals.

Recommended thickness of metal mask: 0.2t